

MICROSCOPE NOTES

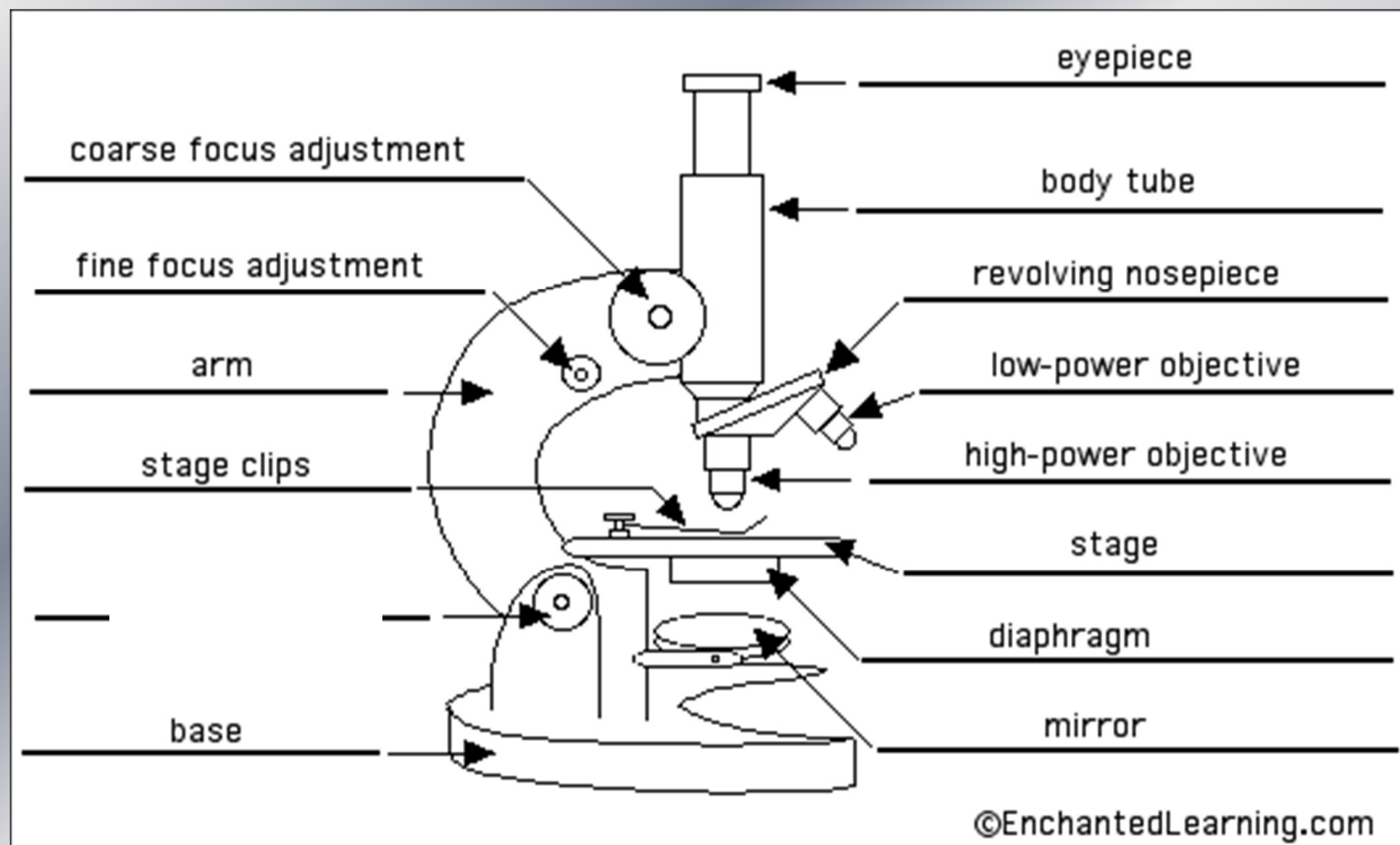
Microscope = produces larger-than life images, pictures, videotapes

Limit of Resolution = point of magnification beyond which images become blurry and lose detail

- There is NO perfect light microscope with no limit

Compound light microscope

- Most common
- Can observe many kinds of cells and small organisms while still alive
- Magnifies up to 1000 times
- Compound = ocular X objective
 - If ocular = 10
 - And objective = 100
 - Total magnification = 1000



Electron microscope

- Magnifies 1000 times greater than light microscope
- Electromagnets bend streams of electrons
- Transmission electron microscopes (TEMs)
 - Specimens are very thin slices
- Scanning electron microscopes (SEMs)
 - 3-D images

Benefits of Electron Microscope

1,000 times larger
image than
compound light
microscope

Problems with Electron Microscope

No living cells
(thin, stained, vacuum)

Expensive

Bigger